

A. McKNIGHT.
CANNING APPARATUS.
APPLICATION FILED AUG. 30, 1909.

949,710.

Patented Feb. 15, 1910.

2 SHEETS—SHEET 1.

Fig. 1.

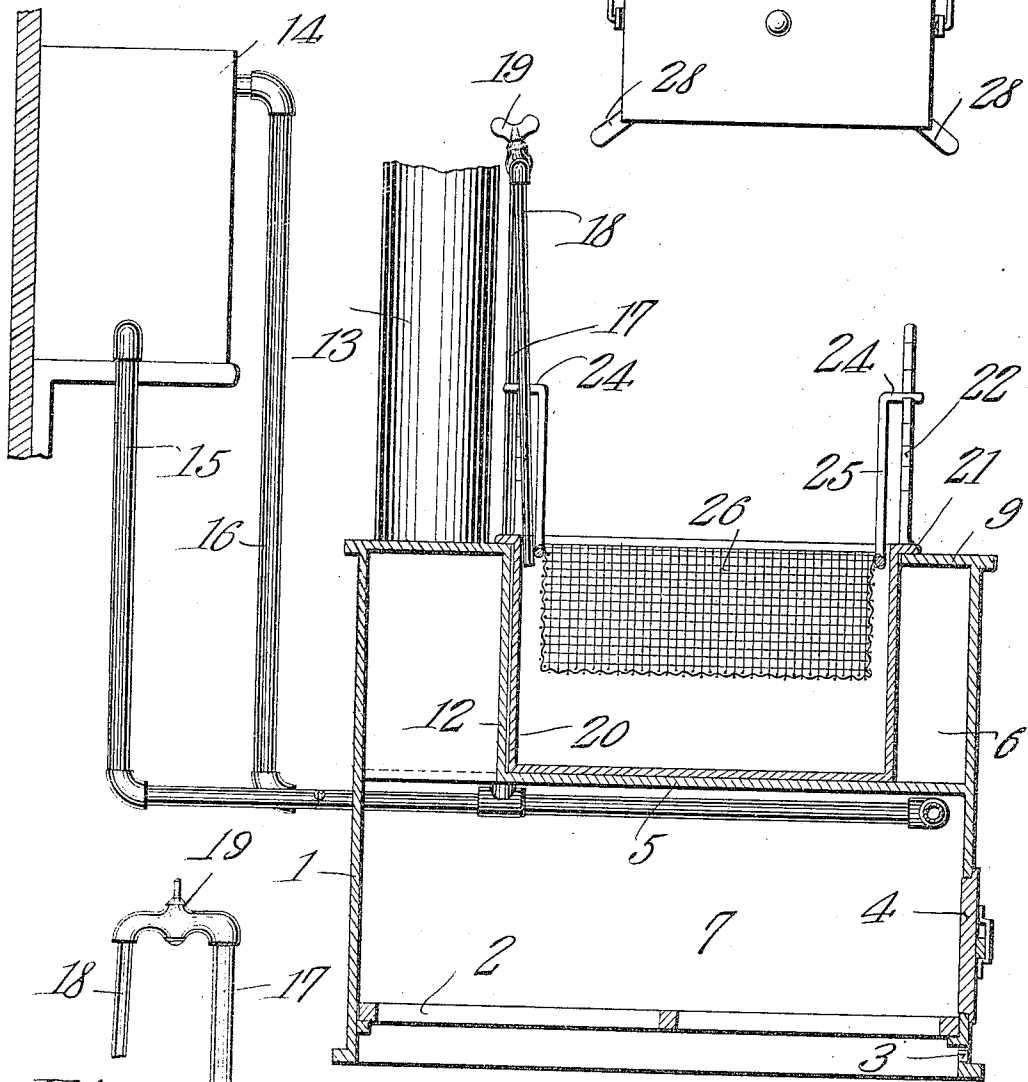


Fig. 6.

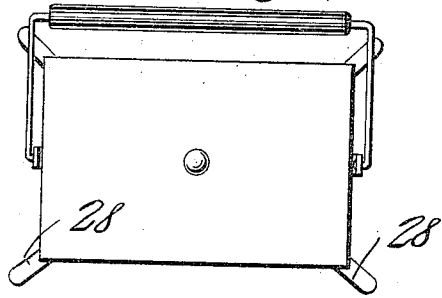


Fig. 4.

Witnesses

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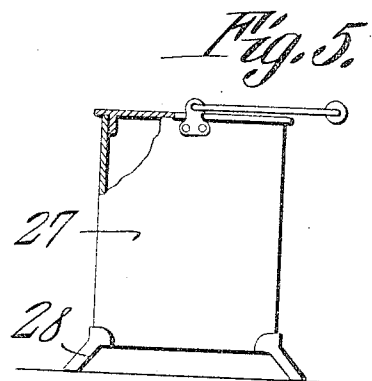
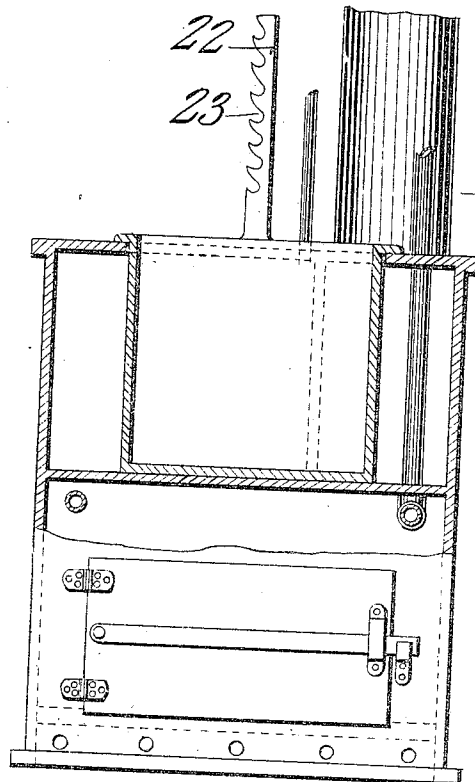
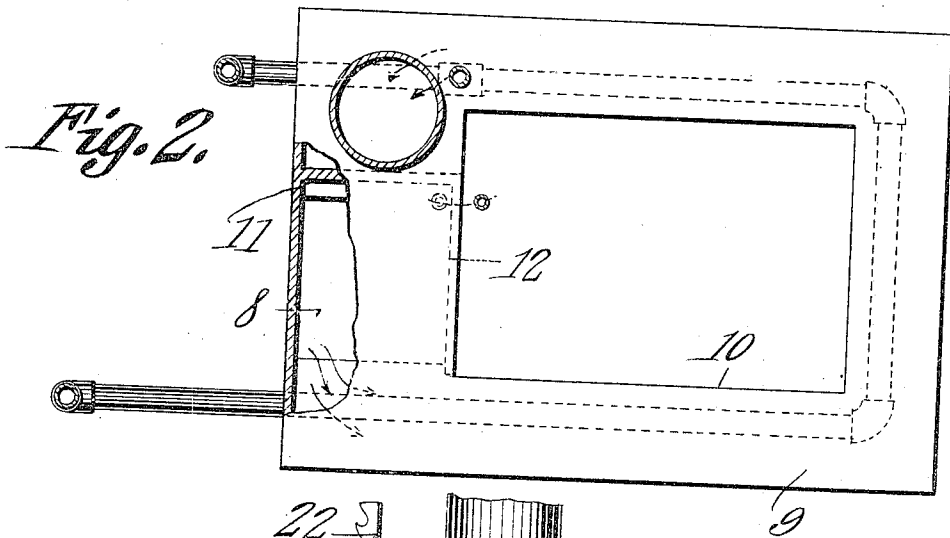
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2 SHEETS—SHEET 2.



Witnesses
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UNITED STATES PATENT OFFICE.

ABRAHAM McKNIGHT, OF EL DORADO, ARKANSAS.

CANNING APPARATUS.

949,710.

Specification of Letters Patent. Patented Feb. 15, 1910.

Application filed August 30, 1909. Serial No. 515,287.

To all whom it may concern:

Be it known that I, ABRAHAM McKNIGHT, a citizen of the United States, residing at El Dorado, in the county of Union and State of Arkansas, have invented a new and useful Canning Apparatus, of which the following is a specification.

This invention relates to apparatus for canning fruits and vegetables, preserving, etc.

One of the objects of the invention is to provide a durable and compact device of this character having improved means whereby hot products of combustion are directed against the walls and bottom of a receptacle contained within the apparatus, thus quickly raising the temperature of the contents of said receptacle.

Another object is to provide a device of this character including feed water heating means whereby a supply of hot water is always available for use in connection with the apparatus.

Another object is to provide a receptacle which can be readily placed in or removed from the apparatus, said receptacle constituting a boiler for supporting a basket therein, said basket being adjustably mounted.

With these and other objects in view, the invention consists in certain novel details of construction and the combinations of parts hereinafter more fully described and pointed out in the claims.

In the accompanying drawings, the preferred form of the invention has been shown.

In said drawings:—Figure 1 is a vertical longitudinal section through a canner embodying the present improvements, the water heating system being shown partly in elevation. Fig. 2 is a plan view of the furnace portion of the apparatus, the smoke stack and the water heating pipes being shown in section, and a portion of the top of the furnace being broken away. Fig. 3 is a view partly in end elevation and partly in transverse section through the apparatus. Fig. 4 is a front elevation of the valve casing of the said water heater. Fig. 5 is a view partly in side elevation and partly in section of a kettle for use in connection with the apparatus. Fig. 6 is a plan view of said kettle.

Referring to the figures by characters of reference, 1 designates a casing preferably rectangular in outline and formed of sheet metal or other suitable material, there be-

ing a grate 2 within the lower portion of the casing for supporting fuel. Air inlet openings 3 are formed in the front wall of the casing and below the grate, there being a fuel door 4 in said wall and above the grate. A horizontal partition 5 divides the interior of the casing 1 into an upper receptacle-receiving compartment 6 and a lower fire compartment 7, there being but a single opening 8 within the compartment and through which products of combustion are free to circulate from the compartment 7 to the compartment 6.

The top 9 of the casing is provided with an opening 10 and connecting the top 9 and the partition 5 is a vertical partition 11 extending along one side of the opening 8 from the rear wall of the casing to the opening 10. Another vertical partition 12 extends from the inner end of partition 11 and along the edge of the opening 10 to one side of said opening, as indicated by dotted lines in Fig. 2, said transverse partition 12 being extended from the partition 5 up to the top 9. A smoke outlet or chimney 13 extends upward from the top 9, the partition 11 being interposed between this outlet and the opening 8.

A water tank 14 is located at any suitable point above the casing top 9 and an outflow pipe 15 extends downward therefrom and thence into the fire chamber 7 close to the partition 5 and adjacent the sides and the front thereof. Water circulating through this pipe is brought back to the tank 14 through return pipe 16. A branch pipe 17 extends upward from the heating pipe within the fire chamber and terminates in a gooseneck 18, the discharge end of which is flexible and designed to be positioned above the opening 10. A valve 19 is mounted within this branch pipe for the purpose of controlling the discharge of hot water therethrough.

The apparatus herein described is designed to be used in connection with a boiler so shaped as to fit snugly within the opening 10 and to rest upon the partition 5, there being a flange 21 extending laterally from the upper edge of each wall of the boiler and designed to rest upon the top 9. Standards 22 extend upward from opposite walls of the boiler, each standard being provided with notches 23. These notches are designed to be engaged by arms 24 extending at right angles from the hangers 25.

These hangers are secured to and extend upward from opposite walls of a reticulated basket 26.

It will be apparent that when the boiler 20 is seated within the opening 10 and upon the partition 5, it becomes impossible for the hot products of combustion to pass from the opening 8 to the outlet stack 13 without circulating entirely around the boiler. Obviously therefore, said boiler becomes thoroughly heated upon all sides and at the bottom and the temperature of the contents thereof will therefore be quickly raised. The heat within the compartment 7 will of course, quickly raise the temperature of the water circulating through the pipes 15 and 16 and when it is desired to fill the boiler 20 with hot water, it becomes merely necessary to swing the discharge end of the branch pipe 17 over the boiler and to then open the valve 19. By means of the basket 26, cans contained therein can be supported at any desired elevation relative to the bottom of the boiler.

Instead of using the apparatus for canning purposes, the same can also be employed for preserving and the like, in which event a kettle such as shown in Figs. 5 and 6 may be utilized. This kettle, which has been indicated at 27, has legs 28 designed to support it out of contact with the partition 5 when the kettle is inserted through the opening 10. By using such a device, the products of combustion entering the chamber 6 will be free to pass under and around the kettle.

It is to be understood of course, that various changes may be made in the construction and arrangement of the parts without departing from the spirit or sacrificing the advantages of the invention.

What I claim is:—

1. Canning apparatus including a casing, a horizontal partition therein and dividing the interior of the casing into a lower or fire compartment and an upper receptacle receiving compartment, there being a receptacle receiving opening in the top of the casing, said partition having an aperture adjacent one end, and the top of the casing being provided with a smoke outlet, a vertical partition connecting the top of the casing and the horizontal partition and interposed between said aperture and the smoke outlet, a transverse partition extending from said vertical partition and between the aperture and the receptacle receiving opening, and a receptacle removably mounted within said opening and bearing on the horizontal partition, the walls of said receptacle constituting the inner walls of a circuitous passage from the aperture in the horizontal partition to the smoke outlet.

2. Canning apparatus including a casing, said casing having a fire compartment and a receptacle receiving compartment, there being an opening in the top of the casing, a receptacle insertible into said opening, a storage tank, circulating pipes extending therefrom and into the fire compartment, a branch pipe upstanding from the circulating pipe and above the casing and a movable extension upon the branch pipe and shiftable above the opening in the top of the casing.

In testimony that I claim the foregoing as my own, I have hereto affixed my signature in the presence of two witnesses.

ABRAHAM McKNIGHT.

Witnesses:

K. W. BULLION,
A. M. CRAIG.